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ABSTRACT

Noting that the communication apprehension (CA) construct advanced more than a decade ago is restricted to talking, this paper points out that the construct now encompasses all modes of communication, including writing and singing. The first section of the paper examines current conceptualizations of the CA construct and compares these to other constructs that have recently been advanced, particularly those of stage fright, reticence, unwillingness to communicate, predispositions toward verbal behavior, shyness, and audience anxiety. The second section of the paper discusses the CA types (trait-like, generalized-context, person/group, and situational), causes, and effects. The third section evaluates several measures of the different types of CA and concludes that an instrument is available to measure situational and person-group CA, some forms of generalized-context CA, but not other types. In addition, it suggests that satisfactory instruments are available to measure trait-like CA concerned with writing and singing, but not that concerned with talking. The paper then proposes a new measure of trait-like CA that concerns talking to other people--the Personal Report of Communication Apprehension-24. Copies of the various instruments examined are appended. (FL)

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ORAL COMMUNICATION APPREHENSION:

RECONCEPTUALIZATION AND A NEW LOOK AT MEASUREMENT

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Abstract

Previous conceptualizations of communication apprehension (CA) and related constructs are reviewed and evaluated. A reconceptualization of CA is presented. Available operationalizations of CA are evaluated in light of this reconceptualization and new measures are recommended for future use.

Paper presented at the Central State Speech Association Convention, Chicago, April 1981.

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Communication apprehension (CA) has been the subject of over 200 reported studies during the decade of 1970-1980. From the limited concern of a few U.S. scholars in Speech Communication, interest in CA has spread to other disciplines[1] and to other nations and cultures.[2] Reports of such research have appeared in most of the journals devoted to Speech Communication as well as many diverse publications in other fields of scholarship.[3] There are two published booklets devoted to CA, one directed to teachers[4] and the other to basic course students.[5] CA has even received attention from the popular press[6] and spawned a newsletter.[7]

It is not an exaggeration to suggest that this area of interest has generated more research over the past decade than almost any other in the Speech Communication field. If we include research concerning related constructs such as reticence and shyness, this volume of research is even more substantial. When so much effort and attention is directed in a single area it is vital that the conceptualizations and measures in the area be strong enough to support such efforts.

The purpose of this paper is to re-examine both the conceptualization and measurement of CA. This re-examination will lead us to conclude the original conceptualization of CA lacks sufficient clarity and specificity for continued use and that the measurement of CA may be insufficiently isomorphic with that conceptualization. A reconceptualization of CA will be provided and measures more isomorphic with the new conceptualization will be advanced.

THE ORIGINAL CONCEPTUALIZATION

The original conceptualization of CA, as advanced by McCroskey in 1970, viewed CA as "a broadly based anxiety related to oral communication."[8] Subsequent writings have made only apparently minor modifications of this definition. The current view is that CA is "an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons."[9]

This seeming consistency across time may be more apparent than real. Two conceptual modifications occurred. The first concerned the oral communication focus of CA and the other concerned whether CA was restricted to a trait conceptualization.

The Oral Focus of CA

In the original article which advanced the construct of CA, the focus clearly was on oral communication.[10] Although in this article "communication" frequently was used without the "oral" qualifier, the earlier work in the areas of stage fright and reticence were acknowledged as the foundations upon which the CA construct was developed. Both of these areas focused exclusively on oral communication at that time.

In some subsequent writings the oral context of CA received less emphasis. Of particular importance were two research programs which were conducted under the general rubric of communication apprehension but which did not focus on speaking. The first was the research concerned with apprehension about

writing.[11] This stream of research, led by Daly and his associates, continues presently and has received considerable attention in the field of English. The measure developed by Daly and Miller, the Writing Apprehension Test (WAT), has been widely employed and found to have only a moderate correlation with the CA measures developed by McCroskey.[12] The second research area was that concerned with apprehension about singing.[13] While receiving far less attention than the articles and measures concerned with speaking and writing, research involving the Test of Singing Apprehension (TOSA) also discovered low correlations between the TOSA and the CA measures developed by McCroskey.

Clearly, talking, writing, and singing are all forms of communication. Just as clearly, apprehension about one is a poor predictor of apprehension about any other one. The emergence of research concerning apprehension about writing and singing requires a re-evaluation of the original definition of the construct "communication apprehension." The revised definition provided by McCroskey, noted above, satisfactorily overcomes this problem. It permits apprehension about talking, writing, or singing to fall comfortably within its boundaries. However, it should be recognized that no measure currently exists that even claims to tap this broadly conceived construct of CA. The Personal Report of Communication Apprehension (PRCA)[14] taps the talking component, the WAT taps the writing component, and the TOSA taps the singing component. While generation of a general CA instrument probably would be possible, efforts in that direction might not be particularly useful. The research indicating that the three measures presently available have little association with each other clearly indicates the multidimensional nature of the general construct. Thus, dimension scores of the new instrument would be the product of major concern. Since satisfactory measures of those dimensions already exist, little would be gained by generating additional ones. If an unidimensional measure could be generated, it would, of necessity, have to be composed of items so general as to make the liklihood almost certain that the ultimate measure would be nothing more than a new general anxiety measure. Several of these already are available.

In sum, over the decade since the CA construct has been advanced it has been substantantially broadened. While it was originally restricted to talking, it now encompasses all modes of communication. Consequently, it should be recognized that current instruments labled as CA measures are restricted to oral CA, specifically apprehension about talking to or with others. Our focus in the remainder of this paper is on this form of CA and when we use the term "CA" this will be our referent. We believe that most of what will follow will apply equally well to other forms of CA, however. When we think this is not the case, it will be noted.

The Trait Conceptualization of CA

The original article which advanced the construct of CA included no explicit mention of whether it is a trait of an individual or a response to the situational elements of a specific communication transaction. However, the implication is clear that the construct was viewed from a trait orientation. Not only was the discussion directed toward a response generalized across situations and time, but also the measures advanced clearly focused on a trait-like pattern.

The overwhelming majority of the research studies employing the CA construct have taken a trait approach.[15] Many have referred to CA with terms such as "a trait-like, personality-type variable." More recently, the CA construct has been explicitly expanded to encompass both trait and situational views.[16] Some research has been reported which has investigated CA in both the trait and state form.[17]

In sum, over the decade since the CA construct has been advanced it has been broadened substantially. While it originally was restricted to a trait orientation, it is now viewed as representing both trait and state approaches. While the original definition of CA restricts the constructs to a trait perspective, the revised definition noted above is consistent with the broader view. It should be recognized, however, that the most popular measures of CA are restricted to a trait conceptualization. Research based on more situational perspectives must employ other instruments.

RELATED CONSTRUCTS

As we have noted above, CA currently is viewed as a person's level of fear or anxiety associated with any form of communication with other people, experienced either as a trait-like, personality-type response or as a response to the situational constraints of a given communication transaction. A number of other constructs have been advanced which have, or at least appear to have, similarities with the CA construct. Two of these appeared in the literature prior to the generation of the CA construct: stage fright and reticence. Four others have come into prominence more recently: unwillingness to communicate, predispositions toward verbal behavior, shyness, and audience anxiety. An examination of these constructs in comparison to the CA construct will help place all of these constructs in clearer perspective.

Stage Fright

Stage fright is the oldest of the conceptualizations related to CA. Empirical research has been directed toward stage fright for almost half a century.[18] Since the attention of the field of Speech during the early days of the work with stage fright was directed almost exclusively to public speaking, it is not surprising that stage fright was examined in this context. From our contemporary vantage point, then, we can view the construct of stage fright as representing CA in the public speaking context.

During the early years of research on stage fright, our sister disciplines of personality, social, and behavioral psychology also were in their developmental years. Many of the insights we now find so useful in understanding the CA phenomenon were yet to be generated. Most importantly, the distinction between trait and state anxiety had yet to be made. Thus, different researchers studying stage fright approached it form different vantage points while assuming they were studying the same thing. Lomas[19] and Gilkinson,[20] for example, worked from a trait, self-report orientation. In contrast, Henning[21] studied state anxiety as manifested through observer ratings while Redding[22] was examining state anxiety as manifested in a physiological arousal measure. Great concern was expressed because high

correlations were not obtained between trait self-report measures and such state measures as observer ratings and physiological arousal measures.[23]

In retrospect it is clear that such concern was misplaced. Measures of traits should not be expected to be highly correlated with state measures restricted to a given situation at a given time.[24] Trait measures should only be expected to be generally predictive across situations, across time.[25] In any event, it is clear that stage fright can be viewed as either a trait-like orientation of an individual that has impact across public speaking situations or as a state response of an individual to a given public speaking situation. Viewed in this way, stage fright is a subset of the broader construct of CA. Sibling constructs relating to other broad types of communication contexts (small group, meetings, dyads, etc.) would be analogs of stage fright and also subsets of the broader CA construct.

Reticence

The construct of reticence has evolved and changed over the 15 years it has been discussed in the literature. As originally conceived reticence and CA were virtually interchangeable.[26] Reticence grew out of the earlier work with stage fright and represented an expansion of that construct to include other communication contexts. The work of Phillips with reticence is specifically acknowledged as the immediate antecedent of CA.[27]

Over the decade of the 1970's, however, the constructs of reticence and CA became quite divergent. While CA was and remains a cognitive construct (although with presumed behavioral impact), reticence moved from being viewed as a cognitive construct to being viewed from a strict behavioral perspective. The contemporary view of reticence is the reverse of communication competence.[28] Reticent communicators are, simply, people who do not communicate competently. While CA is acknowledged as one of the elements which may lead an individual to be reticent, it is not considered the only, nor even necessarily the most important, contributing factor.

Although reticence and CA once were twin constructs, their relationship today is markedly different. Reticence is the much broader of the two constructs. If reticence is viewed as a construct representing the broad range of communicative incompetence, as it is currently viewed by Phillips, then CA is a subset of that broad construct. CA relates to communicative incompetence stemming from anxiety or fear. Its sibling constructs would include such things as inadequate communication skills and cultural divergence.[29]

Unwillingness to Communicate

The unwillingness to communicate construct focuses exactly on what its name implies, the unwillingness of an individual to communicate with others. This construct was advanced by Burgoon in an explicit attempt to broaden concern about noncommunicative behavior beyond the narrower focus of CA and reticence (as conceived at that time).[30]

This construct views the sources of non-communication to be, in addition to CA, low self-esteem, introversion, and anomia and alienation. All of these factors, presumed to lead to non-communication, are cognitively based. Thus, this construct can be viewed as intermediary between CA and the contemporary

view of reticence. More simply, reticence is concerned with people who do not communicate effectively; unwillingness to communicate is concerned with one of the reasons why people may not do so (i.e., they do not want to); and CA is concerned with one of the reasons why people may be unwilling to communicate. The validity and usefulness of this construct is suggested by the results of research employing the unwillingness to communicate measure. This measure includes two factors, one of which is highly associated with CA, the other of which is uncorrelated with CA.

At this point, research employing the unwillingness to communicate construct is very limited and the measure of the construct needs further development, since it lacks isomorphism with the construct. However, its intermediary position between CA and reticence is particularly helpful for understanding the distinctions between the two latter constructs.

Predispositions Toward Verbal Behavior

The construct of predispositions toward verbal behavior (PVB) is very similar to the unwillingness to communicate construct, with two important exceptions.[31] First, PVB appears to be the logical opposite of unwillingness to communicate. A person scoring highly on an appropriate measure of PVB would be expected to be very willing to communicate. In short, PVB could be called "willingness to communicate." In this sense, then, the constructs can be viewed as isomorphic, they are only discussed in differing ways.

The second distinction between the PVB construct and the unwillingness to communicate is more important. While unwillingness is viewed cognitively, PVB is viewed behaviorally. Although the only PVB measure available at present is a self-report scale (thus cognitively mediated), the construct views people behaving in a consistent manner across communication contexts in terms of the amount they talk. Although PVB is a behavioral construct, it should not be confused with the contemporary view of reticence. While reticence is concerned with the quality or competence of communication, PVB is concerned only with the amount.

The conceptual distinctions between CA and PVB and unwillingness to communicate, and the association between the latter constructs, have received some empirical support. In research reported by Daly,[32] a measure of PVB was found to correlate with CA at .66 while the dimensions of unwillingness, labeled reward (r = .01) and approach (r = .88), had widely differing correlations. However, PVB correlated significantly with both the reward factor (.36) and the approach factor (r = .91) of the unwillingness to communicate measure.

PVB, like unwillingness to communicate, should be viewed as a construct holding an intermediary position between CA and reticence. Variability in CA may lead to variability in predispositions toward verbal behavior which may lead to variability in reticence or communication competence.

Shyness

As Zimbardo, the leading writer in the area shyness, says "Shyness is a fuzzy concept."[33] Careful reading of the literature in the area of shyness indicates there is no consensual definition of the construct.

Zimbardo carefully and explicitly avoids defining what he means by "shyness." However, a careful reading of his book on shyness indicates that he is referring to a feeling of discomfort in a variety of communication situations. Thus, Zimbardo can be considered to be approaching shyness primarily from a cognitive orientation. He also acknowledges the trait-state distinction in shyness when he notes that some people are generally shy while others experience situational shyness. If we restrict our view of shyness to that enunciated by Zimbardo, there appears to be no meaningful distinction between this construct and that of CA.

In contrast, Pilkonis (a former student of Zimbardo and major participant on the well-known Stanford shyness research program) sees shyness as "a tendency to avoid other people (unwillingness to communicate? negative PVB?), to fail to respond appropriately to them (reticence?) . . ., and to feel nervous and anxious during interactions with them (CA?)."[34] In behavioral terms, Pilkonis suggests that shy people "are characterized by avoidance of social interaction, and when this is impossible, by inhibition and an inability to respond in an engaging way; they are reluctant to talk, to make eye contact, to gesture, and to smile."[35] As suggested by our parenthetical questions, the Pilkonis view does not seem amenable to classification within any one of the previously discussed construct categories. Rather, it seems to fall at least partially into several of them. Of particular note, however, is Pilkonis' apparent restriction of shyness to the interpersonal context. This restriction distinguishes his construct from all others we have discussed, but the distinction is implied rather than explicit and may not represent his actual view.

Of all the writers in the area of shyness, Buss makes the clearest distinctions between shyness and other constructs.[36] Buss is concerned with a more general construct which he calls "social anxiety," which refers to discomfort in the presence of others. He identifies four categories of this general construct. Two of these, embarrassment and shame, are not of concern here. The third, audience anxiety, will be discussed in the next section. His fourth category is shyness, which he views as "the relative absence of expected social behaviors."[37] This conceptualization of shyness is explicitly restricted to dyadic and small group communication contexts. His operationlization of the construct focuses on discomfort in such contexts, and when viewed in this way can be seen as a subset of the larger CA construct. When viewed from his behavioral definition, however, shyness can be seen as a subset of the retience construct.

The confusion in the literature concerning the construct of shyness is illustrated by the conflicting positions advanced by McCroskey. In 1977, after attempting to distinguish between reticence and CA, and referencing Zimbardo's book, he concludes that the shyness construct is "essentially similar to the CA construct."[38] Only two years later, however, he presents a different view. After examining factor analytic results in a study designed to simplify CA measurement and finding two distinct factors, one is labeled CA and the other shyness.[39] The dimension labeled shyness is composed of items essentially similar to those included on the PVB scale. Thus, seemingly at least, shyness is now equated with PVB. The correlation between this shyness scale and CA is also very similar to that between CA and PVB.

What, then, is the nature of the shyness construct? We are led to conclude that shyness does not represent a single construct, but rather is a label

that has been applied to a variety of disparate constructs. Most importantly, the construct does not seem to have any property that is either universal across writers in this area or that is unique from the constructs which we have discussed previously. Thus, we caution people who read the shyness literature to be aware of the inconsistent use of this label and advise against assuming that shyness is a unique construct. All writings in the area of shyness we have examined are amenable to translation to the constructs of reticence, PVB or unwillingness to communicate, or CA as these constructs have been outlined above. We believe such translation will lead to increased understanding of the literature and avoidance of the conceptual confusion currently present.

Audience Anxiety

The newest conceptualization related to CA, audience anxiety, is highly similar to the oldest conceptualization, stage fright. Audience anxiety is viewed as "fear, tension, and disorganization in front of an audience."[40]

This construct is almost the same as the original stage fright construct. The only meaningful distinction is that anxiety felt in talking in meetings is included in the new construct while generally it was excluded in the older version. They both include anxiety about public speaking.

Audience anxiety, clearly, is a subset of the CA construct. Taken together, Buss' shyness and audience anxiety constructs represent a two-part subdivision of CA. Taken together they represent an approximation of the generalized trait view of CA, although we will note later we believe these are inadequate subdivisions.

When we consider all of the constructs discussed in this section we can see that the CA construct is neither the largest nor the smallest of the group. Communication competence, or reticence, seems to be the broadest construct. Unwillingness to communicate and PVB, seen as parallel but not fully isomorphic constructs, are viewed as constructs purporting to explain part of what is seen as reticence. CA is seen as one of the elements leading to unwillingness to communicate or negative PVB. Stage fright and audience anxiety are seen as representative subconstructs of CA. Shyness, depending on how the label is employed in a given case, can be employed as an equivalent term for constructs at each of the descending conceptual levels.

CROSS-CULTURAL FOUNDATION

The CA construct was developed within the general U.S. culture and most of the research concerning CA has been restricted to that culture. Given this cultural context, it is reasonable to question whether the resulting construct and the research based on that construct are culturally biased. The data available suggest that if such a bias is present, it probably is minimal.

To analyze the relevance of culture to the CA construct one must first recognize that within the general U.S. culture communication is valued quite highly. The bulk of high status and high income occupations are dependent on effective communication. Lest we make too much of this fact, however, we should recognize that the U.S. culture is not greatly deviant in this regard.

While some cultures place an even higher value on communication, notably the Israeli culture, others place a somewhat lower value, notably some Asian and African cultures. Thus, in terms of a value placed on communication, the U.S. culture should be viewed as approximating a mainstream position. The rewards obtainable and punishments avoidable by effective communication in the culture are, by and large, similar to those in most other cultures.

To argue that the CA construct can be generalized beyond the general U.S. culture, two considerations are of particular importance. These are the degree to which representative samples of people from other cultures report levels of CA comparable to those reported by U.S. samples and the degree to which reduced communicative output (one of the presumed impacts of CA) has comparable effects in other cultures compared to the effects in the U.S.

Distribution of CA

Several studies have been directly concerned with comparing the distribution of CA in other cultures with that found within the general U.S. culture. In general, the results have indicated comparability across cultures.

In the most extensive cross-cultural comparison reported to date, Hansford and Hattie compared data from 1784 Australians with data from five American samples (total n = 4542). They found no significant differences between the U.S. and Australian samples, nor did they find any differences attributable to either sex or age.[41] In addition, confirmatory factor analysis indicated the structure of the CA measure was the same whether applied in the U.S. or Australia. Klopf and Cambra report similar findings with regard to the distribution of CA among Australians compared to the general U.S. norms.[42] In addition, they found that Hawaiian Americans reported CA higher than the mainland norms, as did a sample of Japanese. In contrast, they found that a sample of Koreans reported lower CA than the mainland norms. In other phases of this same research program it was found that Guamanians[43] and mainland Chinese[44] did not differ from mainland U.S. norms.

In his research with shyness, Zimbardo has also examined the comparability of other cultures with U.S. norms. In most instances no meaningful differences attributable to culture were observed. However, as with the CA studies, Zimbardo found a higher proportion of shys among Hawaiians and Japanese.[45] He also found Israelies and Jewish Americans to report significantly less shyness than any other groups. No comparable data for CA has yet been reported.

The general conclusion from these cross-cultural investigations, then, is that people in the U.S. culture are not greatly deviant from people in other cultures. However, cultures do exist in which the normative level of CA is both higher and lower than in the general U.S. culture. Direct generalization to these cultures, therefore, must be done with extreme caution.

Reduced Communication

In a wide variety of studies conducted within the U.S. culture, it has been observed that lowered levels of talking are associated with less positive perceptions on the part of other people.[46] People who talk more generally are stereotypically perceived as more credible, attractive, competent and the like.

Recently, Hayes and Meltzer have conducted similar investigations in a variety of cultures. The results in England, Chile, and Mexico have been consistent with those obtained within the U.S. culture.[47]

The tentative conclusion we may draw from the investigations which have been conducted in non-U.S. cultures is that the conceptualization of CA is not seriously culture-bound. Nevertheless, people wishing to generalize to other cultures must keep in mind the particular communication orientations peculiar to those cultures. CA may be more or less of a problem, depending on the cultural communication norms of the society in which it exists. In addition, sexual norms and expectations may interact with CA in greatly differential ways as we move from culture to culture.

A RECONCEPTUALIZATION OF CA

We have noted minor changes in the conceptualization of CA over the past decade. Such changes have appeared in the literature in a non-systematic manner. In addition, some elements of the CA construct have never been spelled out clearly. In the following sections the conceptualization of CA will be enunciated in three major areas: 1) types of CA, 2) causes of CA, and 3) effects of CA.

Types of CA

Considerable attention has been directed toward the distinction between trait and situational or state CA. This distinction has been quite helpful to researchers in the CA area in their attempt to distinguish older from newer approaches to this subject. Unfortunately, this distinction has come to be viewed as a dichotomy, a false dichotomy. To view all human behavior as emanating from either a trait-like, personality orientation of the individual or from the state-like constraints of a situation ignores the powerful interaction of these two sources. No element of personality yet isolated by psychologists or others has been found to have universal predictability across all situations for all individuals. Similarly, no situation has yet been identified in which we can predict a universal behavior from all individuals. Even in life-threatening situations, people do not all behave alike. Thus, it is important that we reject this false state-trait dichotomy and view the sources of CA on a continuum. This continuum can be viewed as ranging from the extreme trait pole to the extreme state pole, although neither the pure trait nor state probably exists as a meaningful consideration. Four points along this continuum can be identified. Each of these points represents a distinct type of CA.

Trait-Like CA. The term "trait-like" is used intentionally to indicate a distinction between this view of CA and one that would look at CA as a true trait. A true trait, as viewed here, is an invariant characteristic of an individual, such as eye color and height. No personality variable, and trait-like CA is viewed as a personality-type variable, meets this strict interpretation of "trait." After achieving adulthood, true traits of an individual are not subject to change. Trait-like personality variables, although highly resistent to change, can be and often are channged during adulthood. That CA is subject to such change is indicated clearly in the substantial research on treatment of people identified as having high CA.[48]

Trait-like CA is viewed as a relatively enduring, personality-type orientation toward a given mode of communication across a wide variety of contexts. Three varieties of this type of CA have been addressed in the literature--CA about oral communication, CA about writing, and CA about singing. The primary measures of these (PRCA, WAT, and TOSA) are presumed to be trait-like measures. By that is meant that it is assumed that scores for an individual on any one of these measures will be highly similar across an extended period of time, barring an intervention program designed to alter the relevant CA level or a demand characteristic introduced into the CA measurement. This is the type of CA to which most of the research has been directed over the past decade.[49]

Generalized-Context CA. Generalized-context CA is one step farther removed from pure trait than trait-like CA. CA viewed from this vantage point represents orientations toward communication within generalizable contexts. Fear of public speaking, the oldest of the CA conceptualizations, is illustrative of this type of CA. This view recognizes that people can be highly apprehensive about communicating in one type of context while having less or even no apprehension about communicating in another type of context.

Generalized-context CA is viewed as a relatively enduring, personality-type orientation toward communication in a given type of context. Although no taxonomy for generalized-context CA yet has received consensual acceptance in the literature, the one advanced by McCroskey and Richmond[50] which is based on types of communication settings appears quite adequate. From their view there are four varieties of this type of CA--CA about public speaking, CA about speaking in meetings or classes, CA about speaking in small group discussions, and CA about speaking in dyadic interactions.

The first CA measure to receive wide acceptance by researchers, the Personal Report of Confidence as a Speaker (PRCS) developed by Gilkinson,[51] is illustrative of an instrument designed to tap this type of CA. Subsequent instruments for measuring public speaking anxiety reported by Paul[52] and McCroskey (the Personal Report of Public Speaking Apprehension; PRPSA)[53] also fall within this area. More recently, McCroskey and Richmond have offered instruments to measure each of the four varieties of generalized- context CA which they describe.[54] As was the case with the trait-like CA measures noted in the previous section, it is assumed that scores for an individual on any one of these measures will be highly similar across an extended period of time, barring an intervention program designed to alter the relevant CA level or a demand characteristic in measurement. These measures are distinguished from the previously noted trait-like measures in that they focus more narrowly on communication within a given type of context rather than on communication across contexts. It should not be surprising, however, to find moderate to moderately high correlations between the two types of measures. To the extent that a trait-like orientation toward communication actually exists, an appropriate measure of that orientation should be at least somewhat predictive of orientations within generalized contexts.

Person-Group CA. This type of CA represents the reactions of an individual to communicating with a given individual or group of individuals across time. People viewing CA from this vantage point recognize that some individuals and groups may cause a person to be highly apprehensive while other individuals or groups can produce the reverse reaction. For some people more apprehension may be stimulated by a peer or group of peers. For others, more

apprehension may be stimulated by unfamiliar individuals or groups. A school teacher, for example, may be highly apprehensive about talking to her or his principal, but have no apprehension about talking to a student in her or his own class.

Person-group CA is viewed as a relatively enduring orientation toward communication with a given person or group of people. It is not viewed as personality-based, but rather a response to situational constraints generated by the other person or group. Although presumed to be relatively enduring, this type of CA would be expected to be changed as a function of changed behavior on the part of the other person or group. Although people with high trait-like CA or high generalized-context CA would be expected to experience high CA with more persons and groups, knowledge of the levels of neither of these should be expected to be predictive of CA experienced with a given individual or group. In short, this type of CA is presumed to be more a function of the situational constraints introduced by the other person or group than by the personality of the individual. Length of acquaintance should be a major consideration here. While in early stages of acquaintance the personality orientations should be somewhat predictive, in later stages the situational constraints should be expected to overpower these orientations.[55]

Few attempts to measure this type of CA have appeared in the literature. However, the state anxiety measure developed by Spielberger,[56] particularly as modified for this purpose by Richmond,[57] appears to be an excellent tool. It can be adapted readily for use with any person or group within any communication context.

Situational CA. This type of CA represents the reactions of an individual to communicating with a given individual or group of individuals at a given time. This is the most state-like of the types of CA. When we view CA from this vantage point we recognize that we can experience CA with a given person or group at one time but not at another time. For example, a student may experience little or no apprehension when going to a teacher to ask a question about an assignment, but be terrified if the teacher instructs the student to stay after class to meet with her or him.

Situational CA is viewed as a transitory orientation toward communication with a given person or group of people. It is not viewed as personality-based, but rather a reponse to the situational constraints generated by the other person or group. The level of this type of CA should be expected to fluctuate widely as a function of changed constraints introduced by the other person or group. Although people with high trait-like CA or high generalized-situation CA would be expected to experience high CA in more individual situations than would other people, knowledge of the levels of neither of these should be expected to be highly predictive of CA experienced by an individual in any given situation. On the other hand, level of person-group CA should be expected to be moderately highly related to situational CA. Person-group CA primarily is a function of the prior history of the individual with the given person or group. Such a history can be assumed to produce expectations which would influence the level of CA in the given situation involving communication with that person or group.

Measurement of situational CA has received little attention in the previous research. However, the Spielberger instrument as modified by Richmond,

as noted in the previous section, appears to be a very satisfactory tool for this purpose.

Figure 1 illustrates the four types of CA. As indicated in that figure, the three components of this conceptualization are context, receiver (person/group), and time. Time should be taken to represent more than just the hour or day of the communication. As conceived here this element includes the variability associated with topic, mood, health, and the like that are seen as changeable over time, as well as the literal element of time itself. Trait-like CA is seen as that which cuts across context, receiver, and time. Generalized-context CA is seen as that which is associated with a single type of communication context cutting across receiver and time. Person-group CA is seen as that which is associated with a single receiver or group of receivers cutting across context and time. Situational CA is seen as that which is specific to a given context with a given receiver at a given time. It is recognized that the three components in this model could be combined to generate additional types of CA. However, at present, we do not believe such combinations provide useful insights.

Pathological CA

It is important that we recognize that the four types of CA discussed above do not reference different types of people. Rather, every individual is impacted by each type of CA to either a greater or lesser degree. It is a truely rare individual, if one actually exists, that never experiences CA in any communication situation. Such an individual would be seen as evidencing pathological behavior, since fear is a natural human response to a truely threatening situation. Similarly, it is comparatively rare individual who experiences CA in all communication situations, although some such people do exist. With the exception of these rare individuals, even people with very high trait-like CA find some situations in which they can communicate comfortably. The most common of these situations involve communication with close friends. It isn't so much that close friends produce less apprehension as it is that people who produce less apprehension are allowed to become close friends while more threatening individuals are avoided.

Since in the previous literature much has been made of the pathological nature of high CA, high reticence, and high shyness, we need to consider what we should view as pathological, or abnormal, levels of CA. This distinction can be made both conceptually and empirically, although the distinctions are not fully isomorphic.

At the conceptual level, we view abnormal behavior to be that which is non-adaptive, non-responsive, or non-functional in the environment in which it is engaged. Normal individuals are sensitive to their environment, respond to its demands, and adapt their behavior so that they are a functional part of that environment. Experiencing fear or anxiety in a threatening situation and adapting by withdrawing or avoiding the threatening situation is normal. Experiencing no fear or anxiety in a non-threatening environment and continuing to function in that environment is normal. The reverse responses are abnormal. Experiencing low CA in the face of real danger and experiencing high CA when no real danger is present are both abnormal responses. If such responses become characteristic of the individual, they may be regarded as pathological and in need of professional help. The question, of course, is one of degree.

Abnormal responses in one or a few circumstances certainly should not generate a judgement of "pathological." Only when such behavior is a consistent pattern of the individual would such a judgement seem warranted. Most importantly, such judgements should not be restricted to only one end of the CA continuum. Extreme low CA can be just as abnormal as extreme high CA.

Empirically, the distinction between noraml and abnormal is a bit more easily determined. We strongly endorse the empirical distinction made most frequently in the previous research. This distinction is based on the normal curve, an approximation of which is generated by scores on most of the common CA measures. People with scores beyond one standard deviation above or below the mean score of the population are identified as high or low in CA. In normally distributed scores, approximately 68 percent of the population falls within one standard deviation of the mean, with 16 percent scoring over one standard deviation higher and 16 percent scoring over one standard lower. The latter two groups are in fact statistically significantly different at alpha = .05.

For research purposes, this is a particularly good distinction. The researcher can be reasonably assured that the people classified as "high" are truely different from those classified as "low." These two groups are the ones which theoretically should manifest differential behaviors related to the measure. Those in the middle, the "normals," actually may have no consistent pattern of behavior, particularly if the measure is a personality-type measure. The middle scores most likely indicate that this is a facet of personality not highly associated with the behavior of these individuals. Other personality elements, or situational constraints, may completely dominate their behavior to the exclusion of this particular personality variable.[58]

This system of classification was originally introduced into the literature by McCroskey as a function of observing groups of students brought into rooms for treatment of trait-like CA. He observed that groups of students composed entirely of individuals with scores beyond one standard deviation from the mean simply did not talk. The behavior of individuals in groups composed of people with scores between one-half and one standard deviation above the mean did not have such a consistent pattern. Some were totally non-communicative, but others were willing to interact.[59] Thus, this classification scheme is not purely arbitary. It does seem to have a behavioral justification.

Two cautions should be stressed, however. First, some samples may not be representative of the overall population. Therefore, the classification-by-standard-deviation procedure should be sensitive to the mean and standard deviation of the population norms rather than the particular sample studied. A sample of successful salespersons, for example, probably would include few people with high CA. Second, while this procedure is excellent for research involving comparatively large samples and based on aggregate data analyses, such a procedure is far too subject to measurement error to be applied to single individuals. Judgements about individuals should never be based on a single score or any scale. Rather, such a score should be only one of many factors to be considered. This is particularly important for people to recognize when developing or implementing intervention programs designed to alter high or low CA.

Causes of CA

The etiology of CA has received comparatively little attention in the literature. Varying writers have presented different views. The differences, however, are not so much a function of disagreement as they are of desperation. The best method of isolating causes of subsequent events generally is considered to be carefully controlled experimentation. Unfortunately, for ethical reasons, this method is highly restricted for investigations of the causes of CA. While we might ethically employ experimentation to investigate situational CA, almost no one would approve such experimentation with trait-like CA. The other types of CA fall within the grey area between these two types. Consequently, most research directed toward the etiology of CA has been performed in naturalistic environments. Such research is useful for establishing correlational associations, but it is frought with potential error when attempting to deduce causality. Much of the writing in this area is based more on speculation than on research. Regretably, the following causal analysis will also have this characteristic. Hopefully, future research will provide insight into the validity of our speculations.

Previous causal analyses generally have been restricted to either viewing trait-like CA or situational CA. We will first present our positions in each of these areas and then advance an etiological explanation which we believe may be applied to all types of CA.

Causes of Trait-Like CA. Throughout the social sciences only two major explanations of the differential trait-like behaviors of individuals hold sway: heredity and environment. Simply put, we can be born with it or we can learn it. We believe that both of these explanations can contribute to our understanding of the etiology of CA.

Although most early writers discounted heredity as a cause of trait-like CA out-of-hand, recent writers have grudgingly acknowledged that there indeed may be an hereditary contribution. Although no one has yet argued that there is a "CA gene," the work of social biologists, particularly their research with twins, has provided compelling evidence that something other than environmentally based learning is having an impact on human behavior tendencies. McCroskey and Richmond summarize the thrust of this research:

> Researchers in the area of social biology have established that significant social traits can be measured in infants shortly after birth, and that infants differ sharply from each other on these traits. One of these traits is referred to as "sociability," which is believed to be a predisposition directly related to adult sociability--the degree to which we reach out to other people and respond positively to contact with other people. Research with identical twins and fraternal twins of the same sex reinforces this theoretical role of heredity. Identical twins are biologically identical, whereas fraternal twins are not. Thus, if differeces between twins raised in the same environment are found to exist, biology (heredity) can be discounted as a cause in one case but not in the other. Actual research has indicated that biologically identical twins are much more similar in sociability than are fraternal twins. This research would be interesting if it were conducted only on

> twin infants, but it is even more so because it was conducted on a large sample of adult twins who had the opportunity to have many different and varied social experiences.[60]

It is important we recognize that the work of the social biologists does not support the argument that heredity is the only cause of sociability, much less of CA, but rather suggests that heredity may be one of the contributing causes. Children, it seems, are born with certain personality predispositions or tendencies. No one has yet argued, not even the most ardent social biologists, that these predispositions or tendencies are unchangeable. Thus, what happens in the child's environment will have some impact on the predispostions and tendencies the child carries over into later life. However, because children are born with different predispositions and tendencies they will react differently to the same environmental conditions. This interaction of heredity and environment, then, is seen as the precursor of adult predispositions and tendencies such as CA.

Although heredity appears to be a meaningful contributor to trait-like CA, most writers allege that reinforcement patterns in a person's environment, particularly during childhood, are the dominant elements. Although most of the views supporting reinforcement as a cause are based primarily on speculation or analogy, some availabe research is supportive.[61]

We can view the causal impact of reinforcement in at least two ways. The first is a fairly narrow, behaviorist view. If the child is reinforced for communicating, the child will communicate more. If the child is not reinforced for communicating, the child will communicate less. While this is a rather simple application of the general theory of reinforcement, and may serve to explain many communication behaviors, since it does not address the cognitions of the individual and CA is viewed as a cognitive variable, this explanation is less than satisfactory for our purpose.

The second way we can view the impact of reinforcement is as an adjunct of modeling. Modeling theory suggests that children (and to some extent adults) observe the communication behavior of others in their environment and attempt to emulate it. If their attempts are reinforced, they continue to behave in a similar manner. If they are not reinforced, they alter their behavior. Such an explanation seems to be a very good way of looking at the development of many communication behaviors, such as accent, dialect, and use of nonverbal behaviors. However, this explanation also ignores the cognitive element and thus does not address CA as conceived here.

While we agree that reinforcement is a central component in the development of CA, we do not believe that the behavioristic approaches outlined above can account for this relationship. Our view of the place of reinforcement as a causal element in the development of CA will be outlined below when we consider the theory of learned helplessness.

Causes of Situational CA. While causal attributions for elements leading to the development of trait-like CA are based primarily on speculation and rather tenuous analogies, the causes of situational CA appear much clearer. In some cases they have been the subject of direct research, in others strong analogies with similar fears or anxieties can be drawn. We find the causal elements outlined by Buss particularly insightful.[62] Buss suggests that

the major elements in the situation which can result in increased CA are: novelty, formality, subordinate status, conspicuousness, unfamiliarity, dissimilarity, and degree of attention from others. In most instances, the opposite of these factors would be presumed to lead to decreased CA in the situation. Let us examine each of these briefly.

The novel situation presents the individual with increased uncertainty about how he or she should behave. If one almost never has an interview, going to an interview would be novel and the individual might not be sure how to behave, thus become more apprehensive. For most people, giving a speech is a novel experience, not something they do every day (or for many, every year). Approaching such a situation would be likely to sharply increase CA.

Formal situations tend to be associated with highly prescribed appropriate behaviors, with comparatively little latitude for deviation. Less formal situations have less rigid behavior rules and much wider latitudes of acceptable behavior. CA is increased in formal situations because of the narrower confines for acceptable behavior. A similar impact results from interacting from a subordinate position. In such situations, appropriate behavior is defined by the person holding higher status. This is particularly important in evaluative settings, which are common in superior-subordinate communication situations.

Probably nothing can increase CA more than being conspicuous in one's environment. Giving a public speech is a prime example of being conspicuous. So is standing up to make a comment in a meeting or classroom. Similarly, being the new person in a social setting or meeting a new person can make a person feel conspicuous. Generally, the more conspicuous one feels, the more CA they are likely to experience.

Although not all people react to unfamiliarity in the same way, may people feel much more comfortable when communicating with people they know than when communicating with people they do not know. In general, as the degree of familiarity increases, the degree of CA decreases. To some extent, similarity has the same kind of impact. For most people, talking to others who are similar to themselves is easier than talking to people who are greatly different. There are major exceptions to this rule, however. Some people are the most uncomfortable when communicating to similar peers, because they are more concerned with the evaluations such people make than they are with people who are very different from themselves.

A moderate degree of attention from others is the most comfortable situation for most people. When people stare at us or totally ignore us when we are communicating, our CA level can be expected to rise sharply and quickly. In addition, if people become overly intrusive into our private feelings and thoughts, we can become very uncomfortable.

In recent work, Daly has noted two elements that go beyond those advanced by Buss as causes of situational CA.[63] These are degree of evaluation and prior history. When we are evaluated we tend to be more anxious than otherwise. For example, a student giving a talk in a public speaking class for a grade may be more apprehensive than the same student would be if he or she were giving the same talk to the same people at a meeting in the dorm. Of course, not everyone responds to evaluation in the same way. As Daly has noted, good writers do better when being evaluated but poor writers do worse. This may

also be true for oral communication, but no research is available which addresses this issue.

The final causative element, prior history, may be the most important of all, as we will note when we consider learned helplessness in the next section. If one has failed before it is increasingly likely that one will fear that he or she will fail again, hence be more apprehensive. On the other hand, success breeds both success and confidence, hence less apprehension.

In sum, there are a variety of elements in communication situations that can cause our CA to increase--whether we are high, moderate, or low in trait-like CA. Their absence, likewise, can lower our CA. Most of these elements are at best only marginally under our control. Thus, situational CA is produced by others in our communication environment, and to a large extent controlled by them. Often, then, the only method of avoiding the unpleasant aspects of situational CA is to withdraw from or avoid such communication situations.

Learned Helplessness and Learned Responsiveness. Although the above causal explanations are useful in developing a fuller understanding of the etiology of CA, none of them are fully satisfactory. Work in the area of expectancy learning, particularly that concerning learned helplessness,[64] permits a causal explanation that can be applied to all types of CA since it takes into account both traits of the individual and the variety of situational demands the individual can confront.

Our approach is a cognitive one. The underlying assumption is that people develop expectations with regard to other people and with regard to situations. Expectations are also developed concerning the probable outcomes of engaging in specific behaviors (like talking). To the extent that such expectations are found to be accurate, the individual develops confidence. When expectations are found to be inaccurate, the individual is confronted with the need to develop new expectations. When this continually recurs, the individual may develop a lack of confidence. When no appropriate expectations can be developed, anxiety is produced. When expectations are produced which entail negative outcomes which are seen as difficult or impossible to avoid, fear is produced. When applied to communication behavior, these latter two cases are the foundation of CA.

Reinforcement is a vital component of expectancy learning. Organisms form expectations on the basis of attempting behaviors and being reinforced for some and either not reinforced or punished for others. The most gestalt expectancy is that there is regularity in the environment. This forms the basis for the development of other, more specific expectations. When no regularity can be discovered in a given situation, either because none exists or there is too little exposure to the situation to obtain sufficient observation and reinforcement, the organism is unable to develop a regular behavioral response pattern for that situation which will maximize rewards and minimize punishments. Anxiety is the cognitive response to such situations, and the behavior is unpredictable to a large extent. However, non-behavior such as avoidance or withdrawal is much more probable, since even though this does not increase probability of obtaining reward, it decreases probability of receiving punishment in many instances. The organism essentially becomes helpless.

In the early animal research concerning helplessness, dogs were placed in an environment in which rewards and punishments were administered on a random schedule. After attempting behaviors to adapt to this environment, but receiving no regualr response from the environment, the dogs retreated to a corner and virtually stopped behaving. They became helpless, and some actually died.[65]

An analog may be drawn with human communication behavior. We learn our communicative behavior by trying various behaviors in our environment and receiving various rewards and punishments (or absence of rewards or punishments) for our efforts. Over time and situations, we develop expectations concerning the likely outcomes of various behaviors within and across situations. Three things can occur from this process. All can occur for the same individual. However, they may occur to greatly different degrees for different individuals. All are environmentally controlled. The three things that can occur are positive expectations, negative expectations, and helplessness. Let us consider each.

When we engage in communication behaviors that work (i.e. are reinforced, we achieve some desired goal), we develop positive expectations for those behaviors and they become a regular part of our communicative repertoire. While in the early childhood years much of this occurs through trial and error, during later stages of development cognition becomes much more important. We may think through a situation and choose communication behaviors which our previous experience suggests we should expect to be successful. Formal instruction in communication adds to our cognitive capacity to develop such expectations and choose appropriate behaviors. To the extent our behaviors continue to be reinforced, we develop stronger positive expectations and our communication behavior becomes more regularly predictable. In addition, we develop confidence in our ability to communicate effectively. Neither anxiety nor fear, the core elements of CA, are associated with such positive expectations.

The development of negative expectations follows much the same pattern as the development of positive expectations. We discover that some communication behaviors regularly result in punishment or lack of reward and tend to reduce those behaviors. During later stages of development, we may make cognitive choices between behaviors for which we have positive and negative expectations, the former being chosen and the latter rejected. However, we may find situations for which we have no behaviors with positive expectations for success. If we can avoid or withdraw from such situations, this is a reasonable choice. However, if participation is unavoidable, we have only behaviors with negative expectations available. A fearful response is the natural outcome. Consider, for example, the person who has attempted several public speeches. In each case, the attempt resulted in punishment or lack of reward. When confronted with another situation which requires the individual to give a public speech, the person will fear that situation. The person knows what to expect, and the expectation is negative.

The development of helplessness occurs when regularity of expectations, either positive or negative, is not present. Helplessness may be either spontaneous or learned. Spontaneous helplessness occurs in new situations. If the person has never confronted the situation before, they may be unable to determine any behavioral options. While this is much more common for young

children, adults may confront such situations. For example, visiting a foreign country whose language is unknown to a person may place one in a helpless condition. Similarily, some people who are divorced after many years of marriage report they find themselves helpless in communication in the "singles scene." Such spontaneous helplessness generates strong anxiety feelings, and the behavior of people experiencing such feelings often is seen by others in the environment as highly aberrant.

Learned helplessness is produced by inconsistent receipt of reward and punishment. Such inconsistency may be either a function of true inconsistency in the environment or the inability of the individual to discriminate among situational constraints in the environment which produce differential outcomes. For example, a child may develop helplessness if the parent reinforces the child's talking at the dinner table some days and punishes it on other days. If the child is unable to determine why the parent behaves differently from day to day, the child is helpless to control the punishments and rewards. Similarly, the child may be rewarded for giving an answer in school but punished for talking to another child in the classroom. If the child is unable to see the differences in these situations, the child may learn to be helpless. When helplessness is learned, it is accompanied by strong anxiety feelings.

Learned helplessness and learned negative expectations are the foundational components of CA. The broader the helplessness or negative expectations, the more trait-like the CA. Inversely, the more situationally specific the helplessness or negative expectations, the more situational the CA. It should be stressed that helplessness and negative expectations (as well as positive expectations) are the product of an interaction of the behaviors of the individual and the responses of the other individuals in the environment. The development of the cognitive responses of the person, then, may be heavily dependent on the behavioral skills of that person, partly dependent on those skills and partly dependent on the responsiveness of the environment, or almost entirely a result of the environment. Thus, any hereditary component that may exist may have either a large or small impact on later cognitions, depending on the type of environment in which the hereditarily predisposed behaviors are performed.

Learned responsiveness is seen as the opposite of learned helplessness. When the individual is able to discern differences in situations and has developed positive expectations for communication behaviors between and across differening situations, the individual has learned to be communicatively responsive. Learned responsiveness is associated with neither fear nor anxiety, thus presents a circumstance antithetical to CA. Learned responsiveness can be the product of unsystematic learning in the natural environment or the direct result of formal communication instruction.

Treatment of CA

Our explanation of the etiology of CA has taken a cognitive perspective. Before turning our attention to possible treatments for CA, we should stress a distinction between what we will call "rational" CA and "non-rational" CA.

Rational levels of CA are produced by combinations of positive and negative expectations and helplessness or responsiveness that are consistent with views of an outside, objective observer's perceptions of reality. That is,

the individual, for example, has a positive expectation for a behavior and an outside observer would agree that such a behavior should be expected to produce positive outcomes. Or, as another example, the individual feels helpless and knows of no behavior that would result in a desired outcome, and an outside observer would agree that that individual has no behavioral choice which would result in a positive outcome. Non-rational CA, on the other hand, is seen as the unjustified expectations and helplessness or responsiveness of the individual, as viewed from the perspective of an outside, objective observer. For example, the individual may have negative expectations for a behavior, but an outside observer would see the behavior as highly likely to produce a desired outcome. Or, the individual feels very responsive, but the observer sees the person's behavior as non-functional in the situation.

We stress this distinction in order to emphasize the fact that some people feel CA in situations where there is no objective reason for them to do so, while others may not experience CA even in situations in which they should. Past approaches to treatment, for the most part, have failed to make this distinction. It was presumed unreasonable to hold high levels of CA but reasonable to hold low levels of CA, thus only those people with high CA were seen as in need of treatment.

In our view, there are two major classifications of treatments, and they should be applied differentially depending on whether the CA level is rational or non-rational. Let us explain.

Treatments may be directed either toward communication behaviors or toward cognitions about communication behaviors. That is, our treatment focus can be on communication skills within or across contexts or on the apprehension about engaging in communication within or across contexts.

Four general conditions are illustrated in Figure 2. The figure represents two levels of communication skill, satisfactory and unsatisfactory, and two levels of CA, low and high. Both low CA/satisfactory skills and high CA/unsatisfactory skills are seen as rational conditions. Low CA/unsatisfactory skills and high CA/satisfactory skills are seen as non-rational conditions. Each condition provides different requirements for effective treatment.

Condition I, low CA/satisfactory skills, requires no treatment. People in this condition have rational cognitions, and most likely are reasonably effective communicators. The goal of all treatments is to move people from the other three conditions to this one.

Condition IV, high CA/unsatisfactory skills, also includes people with rational cognitions. They have unsatisfactory communication skills and are apprehensive about their communication. They have two problems, one behavioral and the other cognitive. No single solution is likely to overcome these problems and move these people to Condition I. If only their skills are improved, they will move to Condition III but still suffer from high CA. If only their CA is improved, they will move to Condition II but still suffer from inadequate skills. Thus, both their skill deficiencies and their CA require treatment. An analogy with basketball may help to clarify. People in Condition IV are poor foul shooters (say 30% in practice) and are very anxious about shooting foul shots in a game. If we overcome only the anxiety, they still can only

shoot 30% in a game. If we only improve their shooting ability in practice, their anxiety will still cause them to miss in the game. To produce a good foul shooter, then, we need both to improve shooting accuracy and reduce anxiety. Returning to communication, people in this condition must develop better skills and reduce their apprehension to become more effective communicators.

Condition II, low CA/unsatisfactory skills, includes people with non-rational cognitions. These are people who should experience high CA, but they don't. We could increase their CA, thus making their cognitions more rational, but that would only move them to Condition IV, certainly not solving a problem but only making it worse. The treatment for people in this condition is directed toward improving communication skills. If skill levels are raised, people in this condition move to Condition I, the desired condition. To employ our basketball analogy, these people are poor foul shooters but not anxious about it. If we raise their skill level (say from 30% to 70%), we will produce a good foul shooter in the regular games.

Condition III, high CA/satisfactory skills, also includes people with non-rational cognitions. These are people who should not experience high CA, but they do. The treatment for people in this condition is directed toward reducing their CA level, thus moving them into Condition I. In our basketball analogy, these are people who shoot well in practice (say 70%) but choke and shoot poorly in the game (say 30%). If we overcome their anxiety, we will produce a good foul shooter in the regular games.

Treatment programs intended to produce effective communicators, then, are of two general types, those which are directed toward improving communication skills and those directed toward reducing CA. The different types of treatment programs are different solutions to different problems and should not be expected to have major effects on problems to which they are not directed. Reducing CA, for example, should not be expected to be associated with major increases in skill levels. Similarly, improving skills should not necessarily be expected to reduce CA, since CA level may be either rational or non-rational. For people with one problem, one treatment should be chosen. For people with both problems, two treatments should be chosen.

The specific nature of treatment programs is beyond our focus here. However, for skill deficiences regular classroom instruction in communication, individualized skills training, and rhetoritherapy are recommended.[66] For CA problems, systematic desensitization[67] and cognitive restructuring[68] seem to be most appropriate. Various combinations of these treatments are possible. The choice of one should not be taken to exclude use of another.

Effects of CA

The effects of CA have been the target of extensive research, particularly concerning trait-like CA, and have been summarized elsewhere.[69] Our focus here will not be on such specific variable research, but rather we will direct our attention toward theoretically more global effect patterns. The previous research, although extremely valuable for generating an understanding of how CA is manifested in ongoing communicative relationships of individuals, has been subject to considerable over-interpretation, if not mis-interpretation. Effects observed in aggregate data analyses often are seen as regular

behavioral and outcome patterns for individual people with high or low CA. Such interpretations fail to recognize the high potential for the individual to deviate from the aggregate norm and the possibility of choosing from numerous behaviors, all of which would be theoretically consistent with the individual's CA level. Our concern here, therefore, will be directed toward the internal impact of CA, possible external manifestitations of CA, and the role CA plays as a mediator between communicative competence and skill and ultimate communicative behavior.

Internal Impact of CA. As we have noted previously, CA is viewed from a cognitive rather than a behavioral perspective. Although CA indeed may have some behavioral implications, as we will note below, it is experienced by the individual internally. The only effect of CA that is predicted to be universal across both individuals and types of CA is an internally experienced feeling of discomfort. The lower the CA, the less the internal discomfort. Since people's cognitions are imperfectly related to their levels of physiological arousal, no physiological variable is predicted to be universally associated with CA across people or across types of CA.

The implications of this conceptualization of CA for both research and treatment cannot be overemphasized. Since CA is experienced internally, the only potentially valid indicant of CA is the individual's report of that experience. Thus, self-reports of individuals, whether obtained by paper-and-pencil measures or careful interviews, obtained under circumstances where the individual has nothing to gain or avoid losing by lying, provide the only potentially valid measures of CA. Measures of physiological activation and observations of behavior can provide, at best, only indirect evidence of CA and, thus, are inherently inferior approaches to measuring CA. Thus, physiological and behavioral instruments intended to measure CA must be validated with self-report measures, not the other way around. To the extent such measures are not related to self-report measures, they must be judged invalid. Currently available data indicate such physiological measures and behavioral observation procedures have low to moderately low validity.[70]

External Impact of CA. As noted above, there is no behavior that is predicted to be a universal product of varying levels of CA. Nevertheless, there are some externally observable behaviors that are more likely to occur or less likely to occur as a function of varying levels of CA. When examining behavioral outcomes of CA, we must keep in mind the distinction among the types of CA discussed earlier. Trait-like CA, for example, will be manifested in behavior in a given situation only as it interacts with the constraints of that situation. A person with high trait-like CA, for example, may behave in a manner no different from anyone else in a quiet conversation with a good friend. Similarly, a person with low trait-like CA may behave in a manner no different from anyone else if called to a meeting to be reprimanded by a superior. The behavioral manifestations of high CA we will discuss here, therefore, presuppose that CA actually is present to a sufficient degree in a given situation to trigger the behavior. The link is most direct for the most situational type of CA. For trait-like CA the link is most tenuous. The behavioral prediction should only be assumed to be correct when considering aggregate behavioral indicants of the individual across time and across contexts.[71]

Three patterns of behavioral response to high CA may be predicted to be generally applicable and one pattern can be described as sometimes present, but

an atypical response pattern. The three typical patterns are communication avoidance, communication withdrawal, and communication disruption. The atypical pattern is excessive communication. Let us consider each.

When people are confronted with a circumstance which they anticipate will make them uncomfortable, and they have a choice of whether or not to confront it, they may either decide to confront it and make the best of it or avoid it and thus avoid the discomfort. Some refer to this as the choice between "fight" and "flight." Research in the area of CA indicates the latter choice should be expected in most instances. In order to avoid having to experience high CA, people may select occupations which involve low communication responsibilities, may pick housing units that reduce incidental contact with other people, may choose seats in classrooms or in meetings that are less conspicious, and may avoid social settings. At the lowest level, if a person makes us uncomfortable, we may simply avoid being around that person. Avoidance, then, is a common behavioral response to high CA.

Avoidance of communication is not always possible. In addition, a person can find her or himself in a situation which generates a high level of CA with no advance warning. Under such circumstances, withdrawal from communication is the behavioral pattern to be expected. This withdrawal may be complete, i.e. absolute silence, or partial, i.e. talking only as much as absolutely required. In a public speaking setting, this response may be represented by the very short speech. In a meeting, class, or small group discussion, it may be represented by talking only when called upon. In a dyadic interaction, it may be represented by only answering questions or supplying agreeing responses with no initiation of discussion.

Communication disruption is the third typical behavioral pattern associated with high CA. The person may have disfluencies in verbal presentation or unnatural nonverbal behaviors. Equally as likely are poor choices of communicative strategies, sometimes reflected in the after-the-fact "I wish I had (had not) said. . ." phenomenon. It is important to note, however, that such behaviors may be produced by inadequate communication skills as well as by high CA. Thus, inferring CA from observations of such behavior is not always appropriate.

Over-communication is a response to high CA that is not common but is the pattern exhibited by a small minority. This behavior represents over-compensation. It may reflect the "fight" rather than the "flight" reaction, the attempt to succeed in spite of the felt discomfort. The person who elects to take a public speaking course in spite of her or his extreme stage fright is a classic example. Less easily recognizable is the individual with high CA who attempts to dominate social situations. Most of the time people who employ this behavioral option are seen as poor communicators but are not recognized as having high CA, in fact they may be seen as people with very low CA.

To this point we have looked at the typical behaviors of people with high CA levels. We might assume that the behaviors of people with low CA would be the exact reverse. That assumption might not always be correct. While people with low CA should be expected to seek opportunities to communicate rather than avoid them, and to dominate interactions in which they are a member rather than withdraw from them, people with low CA may also have disrupted communication and over-communicate. The disruptions may stem from pushing too hard rather

than tension, but the behaviors may not always be distinctly different to the observer. Similarly, the person who over-communicates engages in very similar behavior whether the behavior stems from high or low CA. While future research may permit us to train observers who can distinguish disrupted communication resulting from high CA from that resulting from low CA and possibly distinguish between over-communication behaviors stemming from the two causes, these behaviors are, and probably will remain, indistinguishable by the average person in the communication situation.

CA and Communication Behavior. Without discounting a possible role for herediatary predispositions, we view communication behavior, as other human behavior, as a learned response to one's environment. Since we wish to explore the role of CA as it relates to human communication behavior more generally, it is important to enunciate our assumptions about human learning. Following the lead of comtemporary writers in educational psychology, we view human learning as composed of three domains. These are the cognitive (understanding or knowing)[72], affective (feeling of liking or disliking), and psychomotor (the physical capability of doing) domains.

Because of inconsistent and confused use of terms within the communication literature, when we apply these domains to communication learning, it is important that we make a distinction between communication competence and communication skill. We see communication competence as falling within the cognitive domain and communication skill as falling within the psychomotor domain. More specifically, communication competence is "the ability of an individual to demostrate knowledge of the appropriate communicative behavior in a given situation."[73] Communication competence, then, can be demonstrated by observing a communication situation and identifying behaviors that would be appropriate or inappropriate in that situation. Communication skill, on the other hand, involves actual psychomotor behavior. Communication skill is the ability of an individual to perform appropriate communicative behavior in a given situation. To be judged skilled, then, a person must be able to physically engage in appropriate behaviors.

The three components of desired communication learning, then, are communication competence (knowing and understanding appropriate communication behaviors), communication skill (being able to physically produce appropriate communication behaviors), and positive communication affect (liking and wanting to produce appropriate communication behaviors). Any desired impact on long-term behavior of the individual requires that production of all of these types of learning be achieved, whether by the "natural" environment or by a formal instructional system, or by some combination of the two.

CA can have a major impact in all three areas of communication learning, and, consequently, on the long-term behavior of individuals. High CA is seen as a potential inhibitor of the development of both communication competence and communication skill and as a direct precursor of negative communication affect. Low CA, on the other hand, is seen as a facilitator of the development of communication competence and communication skill and as a precursor of positive communication affect.

With regard to communication competence, high CA is projected as a barrier to accurate observation of the natural environment and sufficient experience within it and as a barrier to the formal study of communication. Not only do

people try to avoid studying things which cause them discomfort, but also such discomfort may inhibit their learning when they do study it. The projected pattern for learning communication skills is seen in the same way. A major facet of psychomotor learning is practice. High CA will lead to less practice and possible misinterpretations of the outcomes of what practice is attempted. The impact of CA in terms of communication affect is even more direct. If we are fearful or anxious about something, we are not given to liking it. On the other hand, things that are not threatening are more likely to generate positive affect.

A major conclusion we can draw from this conceptualization of CA and communication learning is that high CA is highly associated with ineffective communication. As such, CA must be considered a central concern of any instructional program concerned with more effective communication as a targeted outcome, whether the program is labeled a program in communication competence or a program in communication skill. Basic competencies and basic skills cannot be separated from the problem of high CA.

A NEW LOOK AT MEASUREMENT

In the previous sections of this paper we have examined the current conceptualizations of the CA construct and have attempted to reconceptualize the construct. While such a reconceptualization has at least some theoretical utility even in the absence of appropriate operationalizations, this utility can be greatly enhanced by available operationalizations which have high isomorphism with the conceptualization. In this section we will evaluate several measures of different types of CA. We will conclude that an instrument with satisfactory conceptual isomorphism is available to measure situational CA and person-group CA, satisfactory instruments are available to measure some forms of generalized-context CA but not others, and satisfactory instruments are available to measure trait-like CA concerning writing and singing but not that concerned with oral communication (talking). Finally, a new measure of trait-like CA concerning talking to other people will be advanced.[74]

Measurement of Situational CA and Person-Group CA

The instrument developed by Spielberger to measure a wide variety of state anxieties is highly isomorphic with our conceptualizations of both situational CA and person-group CA, with only minor modifications in instructions for the two types of CA.[75] Particularly if employed with the modifications made by Richmond, this instrument should prove to be both highly reliable and valid.[76]

Unfortunately, this instrument is under copyright and is offered for sale.[77] Unlike all of the other CA instruments which will be dicussed below, use of this instrument without appropriate payment of royalties may involve a serious copyright violation. Researchers and practitioners without sufficient financial resources should consider creating their own instrument employing the type of instructions and response options outlined by Richmond.[78]

Measurement of Generalized Context CA

Since generalized-context CA has not been distinguished clearly from trait-like CA in previous conceptualizations, it is not surprising that extensive work on measurement of the various forms of generalized-context CA has not been reported. The exception to this general statement is the work on measurement of CA in the public speaking context. As noted previously, instruments developed by Gilkinson (PRCS),[79] Paul (short-form PRCS),[80] and McCroskey (PRPSA)[81] are available. All of these have strong face validity, good reliability, and have been employed successfully in a number of research projects. Any of these can be selected with confidence for measuring this type of generalized-context CA.

Measures of CA in generalized contexts such as meetings or classes, small groups, and dyadic interactions have received much less attention. The only ones thus far offered in the literature are those provided by McCroskey and Richmond.[82] Their scales for these three generalized contexts, as well as for the public speaking context, are presented in Tables 1-4. Although no empirical support for these measures has been reported to this time, the face validity of these measures is strong. The items all focus on affective reactions, as opposed to reports of behavior, and seem to be broadly representative of possible items within the given context. Additionally, there is a balance of positively and negatively worded items, which should avoid response bias, and the wording of items is simple enough that even relatively young subjects should be able to complete the scales. Also, each scale is short enough that time for completion should not become a problem for researchers. In sum, qualities of instrument construction and face validity of these instruments support their use, at least until such time as empirical tests of their quality are available.

Measurement of Trait-Like CA.

As noted previously, there are three trait-like CA measures in current popular use. The Writing Apprehension Test (WAT)[83] and the Test of Singing Apprehension (TOSA)[84] have strong face validity and emprical reports of their use indicate they are appropriate measures of the kinds of trait-like CA for which they were developed.

The validity of the Personal Report of Communication Apprehension (PRCA)[85] as a measure of trait-like CA concerning talking to other people is more problematic. A very strong case for the predictive validity of this instrument has been made as a result of many studies.[86] Nevertheless, the measure lacks isomorphism with the construct and, thus, is seriously lacking in face validity. The main problem is the over-representation of items relating to the public speaking context and the consequent under-representation of items relating to other contexts.

There are three forms of the PRCA in common use. The original form (PRCA-College)[87] included 20 items. More recently, a 25-item long form and 10-item short form have been made available.[88] Five types of items are present in each of these forms. One type includes items in which the context of communication is unclear. The other four types focus on four different contexts, namely public speaking, group discussion, meetings or classes, and dyadic conversations.

In the original PRCA 50% of the items (original item numbers 2, 4, 8, 9, 10, 12, 13, 14, 19 and 20) are directed toward public speaking; 10% toward meetings or classes (items 3 and 18); 10% toward interpersonal conversations (items 1 and 15); 5% toward group discussion (item 7); and 25% are items in which context is not clear (items 5, 6, 11, 16, and 17). Subsequently, in order to increase the face validity of the measures, five items from the Burgoon Unwillingness to Communicate measure[89] were added to form the 25-item PRCA.[90] While this was an improvement, considerable disproportionality of item representation remained. In this version of the PRCA 40% of the items (item numbers 2, 6, 10, 12, 13, 15, 16, 18, 23, and 25) are directed toward public speaking; 8% toward meetings or classes (items 4 and 22); 16% toward group discussion (items 5, 9, 11, and 17); 12% toward interpersonal conversations (items 1,19, and 24); and 24% are items in which the context is not clear (items 3, 7, 8, 14, 20, and 21). Since the short form of the PRCA is based on the 25-item PRCA, the disproportionality of items also is present in that form--4 public speaking items, 2 group items, 1 meeting or class item, 1 interpersonal conversation item, and 2 items for which the context is not clear.

It is proper to conclude, therefore, that apprehension about public speaking is overly represented in scores generated by the PRCA, whichever form of that instrument is employed.[91] Thus, even though a strong empirical case for the validity of the PRCA has been made, the instrument seems more valid for predicting CA relating to public speaking situations and less valid for predicting CA in all other environments. Surprisingly, the context for which the PRCA seems most valid is the one in which almost no research has been conducted. Since the instrument may have comparatively lower validity when predicting responses in other communication contexts, we might expect comparatively less variance to be predictable in those contexts and some difficulty in replicating findings involving small effects. Some reports of empirical studies support this expectation.[92]

While this analysis challenges the validity of the PRCA, and consequently its future use as a measure of trait-like CA, the fact that the instrument has been found to be very predictive of many outcomes in a variety of contexts, other than public speaking, attests to the potency of the construct of trait-like CA. Clearly, a measure which predominantly taps only one context of CA could predict behavior related to CA in other contexts only if there is an underlying trait-like predisposition with which both or all of the contexts are associated. Our conceptualization of the CA construct asserts that such an underlying trait-like predisposition exists, and the predictive power of the clearly faulty PRCA measures strongly supports that conceptualization.

A New Measure of Trait-Like CA

Since the 20- and 25-item forms of the PRCA have been the instruments predominantly employed for the measurement of trait-like CA in previous research, and our analysis of these instruments indicates they lack sufficient isomorphism with the trait-like CA construct for continued use, it is incumbant upon us to determine the source of the problems with these instruments and provide a new instrument which overcomes these problems.

The disproportionality of item contexts in the previous PRCA instruments was the direct product of the methodologies employed in the development of those

instruments. Specifically, the original sample of items employed had a strong public speaking bias and the use of factor analysis insured the domination of these public speaking items. The item pool from which the original 20-item PRCA was drawn included 76 items, 45 of which were related to public speaking. These items were submitted to factor analysis and only the items with their highest loadings on the first factor were retained for subsequent use. Since it can be assumed that items relating to public speaking will correlate higher with other items relating to public speaking than with items relating to other communication contexts, this use of factor analysis greatly enhanced the probability that the factor to be chosen would be one representing public speaking and that the items on that factor primarily would be ones directed toward that context.

In developing a new version of the PRCA we have carefully avoided these two methodological problems. First, we identified the communication contexts which we believed would provide a respresentative cross-section of all communication contexts. Those selected were public speaking, meetings or classes, group discussions, and dyadic interaction. Second, we selected an equal number of items to reflect each of these contexts from a larger available (pretested) sample. Finally, factor analysis was used only to confirm expected dimensionality rather than to define dimensionality. The empirical development and validation of the new measure are the subjects of a subsequent report, thus they will not be addressed here.

The new PRCA instrument, PRCA-24, is reported in Table 5. It is a 24-item instrument employing the same type of instructions and response options as earlier PRCA instruments. There are six items for each of the four communication contexts, three positively worded and three negatively worded to avoid response bias. The instrument can be used to generate both a general score, representing trait-like CA, and four subscores, representing generalized-context CA in the four areas. The instrument has strong face validity and, as will be reported in detail in a subsequent report, strong empirical indications of validity. This new instrument should replace earlier versions of the PRCA for all research purposes.

CONCLUSION

CA has received extensive attention from many researchers over the past decade and currently is the target of many educationally-based programs designed to help both children and adults. The purpose of this paper has been to analyze what we have learned over the past decade and provide a revised conceptualization of the CA construct and an examination of the available operationalizations of that construct in light of that revised conceputalization. It is hoped that this effort will clarify directions for future research in this area and help both researchers and practitioners avoid the pitfalls encountered by their predecessors.

FOOTNOTES

[1]Some of these include personnel psychology, business administration, behavioral psychology, English, education, general psychology, and pharmacy.

[2]CA research has been reported in Australia, Canada, mainland China, Guam, Korea, and Japan. Projects are underway in Finland, West Germany, India, the Soviet Union, and South Africa.

[3]For example, The Australian Journal of Education, Psychological Reports, Journal of Pharmaceutical Education, Cross Currents, Korea Journal, Journal of Psychology, Journal of Counseling Psychology, Research in the Teaching of English, Journal of Consulting and Clinical Psychology, Behavior Therapy, and Journal of Personality.

[4]James C. McCroskey, Quiet Children and the Classroom Teacher (Urbana, Ill.: ERIC, 1977).

[5]James C. McCroskey and Virginia P. Richmond, The Quiet Ones: Communication Apprehension and Shyness (Dubuque, Iowa: Gorsuch Scarisbrick, 1980).

[6]CA was the topic of a "People Quiz" column by John E. Gibson in Family Weekly in November, 1979. CA has also been the topic of discussion on numerous radio talk shows. Both shyness and reticence have been the subject of interviews on the Johnny Carson and Phil Donahue shows as well as other TV interview shows.

[7]The Communication Apprehension Newsletter was begun in 1980. To be included on the mailing list, write Mrs. Arden Watson, Department of Communication and Theatre, Western Kentucky University, Bowling Green, KY 42101.

[8]James C. McCroskey, "Measures of Communication-Bound Anxiety," Speech Monographs, 37 (1970), 269-277.

[9]James C. McCroskey, "Oral Communication Apprehension: A Summary of Recent Theory and Research," Human Communication Research, 4 (1977), 78-96; James C. McCroskey, "Validity of the PRCA as an Index of Oral Communication Apprehension," Communication Monographs, 45 (1978), 192-203; McCroskey and Richmond.

[10]McCroskey, "Measures of Communication-Bound Anxiety".

[11]John A. Daly and Michael D. Miller, "The Empirical Development of an Instrument to Measure Writing Apprehension," Research in the Teaching of English, 9 (1975), 242-249.

[12]McCroskey, "Measures of Communication-Bound Anxiety", "Validity of the PRCA as an Index of Oral Communication Apprehension", and "Oral Communication Apprehension: A Summary of Recent Theory and Research."

[13]Peter A. Andersen, Janis F. Andersen, and John P. Garrison, "Singing Apprehension and Talking Apprehension: The Development of Two Constructs," Sign Language Studies, 19 (1978), 155-186.

[14]McCroskey, "Measures of Communication-Bound Anxiety," and "Validity of the PRCA as an Index of Oral Communication Apprehension."

[15]See McCroskey, "Oral Communication Apprehension: A Summary of Recent Theory and Research."

[16]McCroskey, "Oral Communication Apprehension: A Summary of Recent Theory and Research."

[17]See, for example, Virginia P. Richmond, "The Relationship Between Trait and State Communication Apprehension and Interpersonal Perceptions During Acquaintance Stages," Human Communication Research, 4 (1978), 338-349; and Marshall Prisbell and Judith Dallinger, "Trait and State Communication Apprehension and Level of Uncertainty Over Time," paper presented at the Western Speech Communication Association convention, San Jose, CA, 1981.

[18]For a summary of this research, see Theodore Clevenger, Jr., "A Synthesis of Experimental Research in Stage Fright," Quarterly Journal of Speech, 45 (1959), 134-145.

[19]Charles W. Lomas, "A Study of Stage Fright as Measured by Student Reactions to the Speech Situation," M.A. thesis, Northwestern University, 1934.

[20]Howard Gilkinson, "Social Fears as Reported by Students in College Speech Classes," Speech Monographs, 9 (1942), 141-160.

[21]James H. Henning, "A Study of Stage Fright Through the Comparison of Student Reactions and Instructor Observations During the Speech Situation," M.A. thesis, Northwestern University, 1935.

[22]Charles W. Redding, "The Psychogalvanometer as a Laboratory Instrument in the Basic Course in Speech," M.A. thesis, University of Denver, 1936.

[23]Clevenger.

[24]This misplaced concern not only appears in the older literature, it also is seen in some contemporary writings.

[25]For an excellent explanation of this problem, see James Jaccard and John A. Daly, "Personality Traits and Multiple-Act Criteria," Human Communication Research, 6 (1980), 367-377.

[26]Gerald M. Phillips, "Reticence: Pathology of the Normal Speaker," Speech Monographs, 35 (1968), 39-49.

[27]McCroskey, "Measures of Communication-Bound Anxiety" and James C. McCroskey, "On Communication Competence and Communication Apprehension: A Response to Page," Communication Education, 29 (1980), 109-111.

[28]Gerald M. Phillips, "On Apples and Onions: A Reply to Page," Communication Education, 29 (1980), 105-108.

[29]For an expansion of this view, see McCroskey and Richmond.

[30]Judee K. Burgoon, "The Unwillingness-to-Communicate Scale: Development and Validation," Communication Monographs, 43 (1976), 60-69.

[31]C. David Mortensen, Paul H. Arntson, and Myron Lustig, "The Measurement of Verbal Predispositions: Scale Development and Application," Human Communication Research, 3 (1977), 146-158.

[32]John A. Daly, "The Assessment of Social-Communicative Anxiety Via Self-Reports: A Comparison of Measures," Communication Monographs, 45 (1978), 204-218.

[33]Philip G. Zimbardo, Shyness: What It Is and What to Do About It (Reading, MA: Addison-Wesley, 1977).

[34]Paul A. Pildonis, Carol Heape, and RobertH. Klein, "Treating Shyness and Other Relationship Differences in Psychiatric Outpatients," Communication Education, 29 (1980), 250-255.

[35]Pilkonis, Heape, and Klein.

[36]Arnold H. Buss, Self-Consciousness and Social Anxiety (San Francisco: W. H. Freeman, 1980).

[37]Buss, 184.

[38]McCroskey, "Oral Communication Apprehension: A Summary of Recent Theory and Research."

[39]James C. McCroskey, Janis F. Andersen, Virginia P. Richmond, and Lawrence R. Wheeless, "Teacher Communication Orientations and the Development of Communication Orientations Among Elementary School Children: A Modeling Explanation," paper presented at the International Communication Association Convention, Philadelphia, 1979.

[40]Buss, 165.

[41]B. C. Hansford and J. A. Hattie, "Communication Apprehension: An Assessment of Australian and United States Data," Australian SCAN: Journal of Human Communication, in press.

[42]Donald W. Klopf and Ronald E. Cambra, "Communication Apprehension Among College Students in America, Australia, Japan, and Korea," The Journal of Psychology, 102 (1979), 27-31.

[43]Thomas Bruneau, Ronald Cambra, and Donald Klopf, "Communication Apprehension: It's Incidence in Guam and Elsewhere," paper presented at the Communication Association of the Pacific Convention, Agana, Guam, 1980.

[44]Donald Klopf and Ronald Cambra, "Apprehension About Speaking Among College Students in the People's Republic of China," Psychological Reports, 46 (1980), 1194.

[45]Zimbardo, 233.

[46]Donald P. Hayes and Leo Meltzer, "Interpersonal Judgment Based on Talkativeness: I Fact or Artifact?" Sociometry, 33 (1972), 538-561. James C. McCroskey and Virginia P. Richmond, "The Effects of Communication Apprehension on the Perception of Peers," Western Speech Communication Journal, 40 (1976), 14-21.

[47]Donald P. Hayes and Leo Meltzer, "Interpersonal Judgments Based on Talkativeness II," unpublished paper, Cornell University.

[48]See, for example, James C. McCroskey, "The Implementation of a Large-Scale Program of Systematic Desensitization for Communication Apprehension," Speech Teacher, 21 (1972), 255-264.

[49]For a summary of much of this research, see McCroskey, "Oral Communication Apprehension: A Summary of Recent Theory and Research."

[50]McCroskey and Richmond, The Quiet Ones: Communication Apprehension and Shyness.

[51]Gilkinson.

[52]Gordon L. Paul, Insight Versus Desensitization in Psychotherapy (Stanford: Stanford University Press, 1966).

[53]McCroskey, "Measures of Communication-Bound Anxiety."

[54]McCroskey and Richmond, The Quiet Ones: Communication Apprehension and Shyness.

[55]For support for this view, see Richmond.

[56]Charles D. Spielberger, "Theory and Research on Anxiety," in Anxiety and Behavior, Charles D. Speilberger, ed. (New York: Academic Press, 1966).

[57]Richmond.

[58]It has been demonstrated repeatedly in the personality literature that any given personality variable may be relevant to behavioral prediction for some people but not for all people. People scoring in the mid-range of the measure are least predictable. For such people, the variable may be irrelevant and their behavior may be controlled by the situation and/or other personality characteristics. For a discussion of these problems, see D. Bem and A. Allen, "On Predicting Some of the People Some of the Time: The Search for Cross-Situational Consistencies in Behavior," Psychological Review, 81 (1974), 506-520; and D. J. Bem and D. C. Funder, "Predicting more of the People More of the Time: Assessing the Personality of Situations," Psychological Review, 85 (1978). 485-501.

[59]These observations were made during data collection for the study reported by Charles D. Ertle, "A Study of the Effect of Homogeneous Grouping on Systematic Desensitization for the Reduction of Interpersonal Communication Apprehension," Ph.D. dissertation, Michigan State University, 1969.

[60]McCroskey and Richmond, The Quiet Ones: Communication Apprehension and Shyness, 6.

[61]See, for example, James C. McCroskey and Virginia P. Richmond, "Community Size as a Predictor of Development of Communication Apprehension: Replication and Extension," Communication Education, 27 (1978), 212-219.

[62]Buss.

[63]John A. Daly and Joy Lynn Hailey, "Putting the Situation into Writing Research: Situational Parameters of Writing Apprehension as Disposition and State," paper presented at the National Council of Teachers of English Convention, Cincinnati, 1980.

[64]Martin E. Seligman, Helplessness: On Depression, Development and Death (San Francisco: W. H. Freeman, 1975).

[65]Seligman.

[66]See, for example, Gerald M. Phillips, "Rhetoritherapy Versus the Medical Model: Dealing With Reticence," Communication Education, 26 (1977), 34-43.

[67]McCroskey, "The Implementation of a Large-Scale Program of Systematic Desensitization for Communication Apprehension."

[68]William J. Fremouw and Michael D. Scott, "Cognitive Restructuring: An Alternative Method for the Treatment of Communication Apprehension," Communication Education, 28 (1979), 129-133.

[69]McCroskey, "Oral Communication Apprehension: A Summary of Recent Theory and Research.

[70]For earlier research, see Clevenger. More recently, it has been found that although self-reported trait-like CA, as measured by the PRCA, is not highly correlated with physiological arousal, as measured by heart rate, the two combined are able to predict over 80 percent of the variance in self-reported state apprehension, as measured by a modification of the Speilberger state anxiety measure. The beta weights for the two predictors are nearly equal with little colinearity. See Ralph R. Behnke and Michael J. Beaty, "A Cognitive-Physiological Model of Speech Anxiety," unpublished paper, Texas Christian University, 1981.

[71]For suggestions for testing this type of prediction, see Jaccard and Daly. Recent research reports validity coefficients in the neighborhood of .50 for the PRCA and a measure of shyness when tested in this way. See, James C. McCroskey and Virginia P. Richmond, "Communication Apprehension and Shyness: Validation of Two Constructs and Measures," paper presented at the International Communication Association Convention, Minneapolis, 1981.

[72]Our use of "cognitive" previously referred to the distinction made in psychology between "cognitivists" and "behaviorists." This is a broader use of the term than the one relating to the domains of learning. The reader should avoid confusing the two usages.

[73]Carl E. Larson, Philip M. Backlund, Mark K. Redmond, and Alton Barbour, Assessing Communicative Competence (Falls Church, VA: Speech Communication Association and ERIC, 1978), 16.

[74]The analyses of instruments to be offered here will be subjective. The concern will be face or content validity. An empirical evaluation of generalized-context CA and trait-like CA measures is the subject of a subsequent report. The data in that report provide a strong empirical case for the validity of these measures.

[75]Speilberger.

[76]Richmond. See also, Patricia Kearney and James C. McCroskey, "Relationships Among Teacher Communication Style, Trait and State Communication Apprehension, and Teacher Effectiveness," in Dan Nimmo, ed., Communication Yearbook 4 (New Brunswick, NJ: Transaction Books, 1980), 533-552.

[77]People wishing permission for use of this instrument should write Consulting Psychologists Press, Inc., 577 College Ave., Palo Alto, CA 94306.

[78]Richmond.

[79]Gilkinson.

[80]Paul.

[81]McCroskey, "Measures of Communication-Bound Anxiety."

[82]McCroskey and Richmond, The Quiet Ones: Communication Apprehension and Shyness.

[83]Daly and Miller.

[84]Andersen, Andersen, and Garrison.

[85]McCroskey, "Measures of Communication-Bound Anxiety," and "Validity of the PRCA as an Index of Oral Communication Apprehension."

[86]McCroskey, "Validity of the PRCA as an Index of Oral Communication Apprehension," and McCroskey and Richmond, "Communication Apprehension and Shyness: Validation of Two Constructs and Measures."

[87]McCroskey, "Measures of Communication-Bound Anxiety."

[88]McCroskey, "Validity of the PRCA as an Index of Oral Communication Apprehension."

[89]Burgoon.

[90]McCroskey, "Validity of the PRCA as an Index of Oral Communication Apprehension."

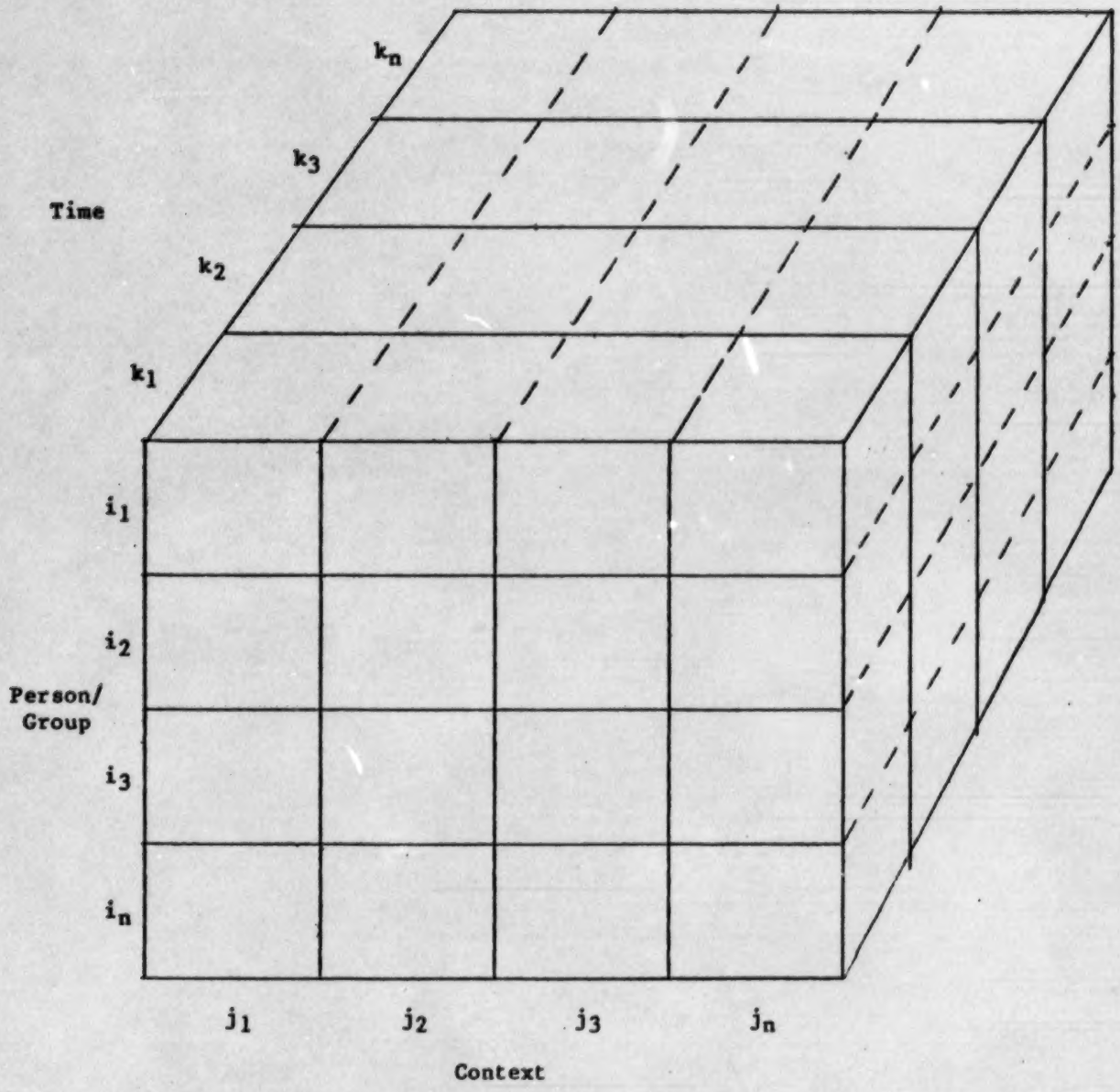
[91]This position also has been established empirically. See D. Thomas Porter, "An Empirical Appraisal of the PRCA for Measuring Oral Communication

Apprehension," paper presented at the Speech Communication Association Convention, New York, 1980.

[92]See, for example, D. Thomas Porter, "Communication Apprehension: Communication's Latest Artifact?" in Dan Nimmo, ed., Communication Yearbook 3 (New Brunswick, NJ: Transaction Books, 1979), 241-259; and Malcom R. Parks, Kathryn Dindia, John Adams, Eileen Berlin, and Kerby Larson, "Communication Apprehension and Student Dating Patterns: A Replication and Extension," Communication Quarterly, 28 (1980), 3-9.

Figure 1

Illustration of Types of CA



Trait-Like = grand sum of all i_x j_x k_x cells
Generalized-Context = j_x across time and context
Person-Group = i_x across time and context
Situational = each i_x j_x k_x cell

Figure 2

Rational and Non-rational CA Levels

Communication Apprehension Level	Communication Skill Level: Satisfactory	Communication Skill Level: Unsatisfactory
Low	Rational I	Non-rational II
High	Non-rational III	Rational IV

Table 1

Generalized-Situation CA: Measure for Group Discussion

Directions: This instrument is composed of ten statements concerning your feelings about communicating with other people. Please indicate in the space provided the degree to which each statement applies to you by marking whether you (1) strongly agree, (2) agree, (3) are undecided, (4) disagree, or (5) strongly disagree with each statement. There are no right or wrong answers. Many statements are similar to other statements. Do not be concerned because of this. Work quickly; just record your first impression.

*_____ 1. I am afraid to express myself in a group.

*_____ 2. I dislike participating in group discussions.

_____ 3. Generally, I am comfortable while participating in a group discussion.

*_____ 4. I am tense and nervous while participating in group discussions.

_____ 5. I have no fear about expressing myself in a group.

_____ 6. Engaging in a group discussion with new people is very pleasant.

*_____ 7. Generally, I am uncomfortable while participating in a group discussion.

_____ 8. I like to get invovled in group discussions.

*_____ 9. Engaging in a group discussion with new people makes me tense and nervous.

*_____ 10. I am calm and relaxed while participating in group

*Scores on items indicated should be reversed before summing to obtain total. Resulting scores may range from 10 (very low CA) to 50 (very high CA).

Table 2

Generalized-Situation CA: Measure for Meetings or Classes**

Directions: same as in table 1

_____ 1. I look forward to expressing my opinions at meetings (in classes).

*_____ 2. I am self-conscious when I am called upon to express an opinion at a meeting (in a class).

*_____ 3. Generally, I am nervous when I have to participate in a meeting (in a class).

_____ 4. Communicating in meetings (in classes) generally makes me feel good.

_____ 5. Usually I am calm and relaxed while participating in meetings (in classes).

*_____ 6. I am self-conscious when I am called upon to answer a question at a meeting (in a class).

_____ 7. I am very calm and relaxed when I am called upon to express an opinion at a meeting (in a class).

*_____ 8. I am afraid to express myself at meetings (in classes).

*_____ 9. Communicating in meetings (in classes) generally makes me uncomfortable.

_____ 10. I am very relaxed when answering questions at a meeting (in a class).

* Scores on items indicated should be reversed before summing to obtain total. Resulting scores may range from 10 (very low CA) to 50 (very high CA).

**Items may be directed toward classes for student samples, if desired, by substituting the words in parentheses for the references to meetings.

Table 3

Generalized-Situation CA: Measure for Dyadic Conversation

Directions: same as in table 1

*_____ 1. While participating in a conversation with a new acquaintance I feel very nervous.

_____ 2. I have no fear of speaking up in conversations.

*_____ 3. Talking with one other person very often makes me nervous.

*_____ 4. Ordinarily, I am very tense and nervous in conversations.

*_____ 5. Conversing with people who hold positions of authority causes me to be fearful and tense.

_____ 6. Generally, I am very relaxed while talking with one other person.

_____ 7. Ordinarily, I am very calm and relaxed in conversations.

_____ 8. While conversing with a new acquaintance I feel very relaxed.

_____ 9. I am relaxed while conversing with people who hold positions of authority.

*_____ 10. I am afraid to speak up in conversations.

* Scores on items indicated should be reversed before summing to obtain total. Resulting scores may range from 10 (very low CA) to 50 ,very high CA).

Table 4

Generalized-Situation CA: Measure for Public Speaking

Directions: same as in table 1

_____ 1. I have no fear of giving a speech.

_____ 2. I look forward to giving a speech.

*_____ 3. Certain parts of my body feel very tense and rigid while giving a speech.

_____ 4. I feel relaxed while giving a speech.

*_____ 5. Giving a speech makes me anxious.

*_____ 6. My thoughts become confused and jumbled when I am giving a speech.

_____ 7. I face the prospect of giving a speech with confidence.

*_____ 8. While giving a speech I get so nervous I forget facts I really know.

*_____ 9. Giving a speech really scares me.

_____ 10. While giving a speech I know I can control my feelings of tension and stress.

* Scores on items indicated should be reversed before summing to obtain total. Resulting scores may range from 10 (very low CA) to 50 (very high CA).

Table 5

Personal Report of Communication Apprehension (PRCA-24)

Directions: This instrument is composed of 24 statements concerning your feelings about communication with other people. Please indicate in the space provided the degree to which each statement applies to you by marking whether you (1) Strongly Agree, (2) Agree, (3) Are Undecided, (4) Disagree, or (5) Strongly Disagree with each statement. There are no right or wrong answers. Many of the statements are similar to other statements. Do not be concerned about this. Work quickly, just record your first impression.

_____ 1. I dislike participating in group discussions.
_____ 2. Generally, I am comfortable while participating in a group discussion.
_____ 3. I am tense and nervous while participating in group discussions.
_____ 4. I like to get involved in group discussions.
_____ 5. Engaging in a group discussion with new people makes me tense and nervous.
_____ 6. I am calm and relaxed while participating in group discussions.
_____ 7. Generally, I am nervous when I have to participate in a meeting.
_____ 8. Usually I am calm and relaxed while participating in meetings.
_____ 9. I am very calm and relaxed when I am called upon to express an opinion at a meeting.
_____ 10. I am afraid to express myself at meetings.
_____ 11. Communicating at meetings usually makes me uncomfortable.
_____ 12. I am very relaxed when answering questions at a meeting.
_____ 13. While participating in a conversation with a new acquaintance, I feel very nervous.
_____ 14. I have no fear of speaking up in conversations.
_____ 15. Ordinarily I am very tense and nervous in conversations.
_____ 16. Ordinarily I am very calm and relaxed in conversations.
_____ 17. While conversing with a new acquaintance, I feel very relaxed.
_____ 18. I'm afraid to speak up in conversations.
_____ 19. I have no fear of giving a speech.
_____ 20. Certain parts of my body feel very tense and rigid while giving a speech.
_____ 21. I feel relaxed while giving a speech.
_____ 22. My thoughts become confused and jumbled when I am giving a speech.
_____ 23. I face the prospect of giving a speech with confidence.
_____ 24. While giving a speech I get so nervous, I forget facts I really know.

SCORING:

Group = 18 - (1) + (2) - (3) + (4) - (5) + (6)
Meeting = 18 - (7) + (8) + (9) - (10) - (11) + (12)
Dyadic = 18 - (13) + (14) - (15) + (16) + (17) - (18)
Public = 18 + (19) - (20) + (21) - (22) + (23) - (24)
Overall CA = Group + Meeting + Dyadic + Public